SEMESTER END EXAMINATION, APRIL-MAY, 2026

Course Name: - B. Tech **Semester: - II**

Paper Name: - Introduction to Python Programming **Paper Code: - NES-203**

Time - 3 Hrs + 20 minutes per hour extra time for V.I. & examinees with writer. **Max Marks-70**

Instructions:

- The question paper consists of three sections namely A, B, C. All sections are compulsory.
- Section A- Each question carries 3 mark. All questions are compulsory.
- Section B- Answer any 5 out of 7 given questions. Each question carries 7 marks.
- Section C- Answer any 2 out of 3 given questions. Each question carries 10 marks.

Section - A
Objective Questions

1. Answer all the following questions. **5×3 =15**

i) What is the primary purpose of a namespace?

a) To organize code into modules

b) To avoid naming conflicts and collisions

c) To define global variables

d) To enhance code readability

ii) How do you pass a variable number of keyword arguments to a function?

a) Using the **kwargs syntax

a) Using the *args syntax

b) Using the kwargs function

c) Using the args function

iii) What is printed by the following statements?

```
s = "python programming is easy"
print (s [-1: 0: -2])
```

a) ya igimropnhy

b) ython programming is easy

c) pto oamigsay

d) none of these

iv) Which keyword is used to manually trigger an exception in Python?

a) throw

b) raise

c) trigger

d) exception

v) What will be the output of the following Python code?

```
def cal (n):
    return [n*n, n*n*n]
print (cal (3))
```

a) [9, 27]

b) (9,27)

c) 9, 27

d) None of these

Section – B
Short Answer Questions

2. Answer any five of the following questions. **5×7=35**

i. State and explain any six features of python.

ii. Illustrate different list slicing constructs for the following operations on the following list:

L = [1, 2, 3, 4, 5, 6, 7, 8, 9]

a. Return a list of numbers starting from the last to second item of the list

b. Return a list that start from 3rd item to second last item.

c. Return a list that has only even position elements of list L to list M.

d. Return a list that starts from the middle of the list L.

iii. Differentiate between list, tuple and dictionary.

iv. Write a program in Python using nested if statement that implements the following

a) If age < 18; display 'You are minor and not eligible to cast vote.'

b) If age >= 18 and age < 60; display 'You are young and eligible to cast vote.'

c) Otherwise, display 'You are a senior citizen person '

v. Demonstrate the following functions/methods which operates on dictionary in Python with suitable examples.

i) dict () ii) len () iii) clear () iv) pop () v) keys () vii) values () vii) item ()

vi. Differentiate between class and object. Create a class named Room with length, breadth and function calulate_area to calculate its area.

vii. Demonstrate the following functions/methods which operates on tuples in Python with suitable examples.

i) len () ii) count () iii) index () iv) sorted () v) min () vi) max () vii) cmp ()

Section – C
Descriptive Questions

3. Answer any two of the following question. **2×10=20**

i) **(a)** Differentiate between mutable and immutable data types in python.

(b) Briefly explain namespace and indentation.

ii) Differentiate between argument and parameter. Explain variable length argument with suitable example.

iii) WAP to demonstration various operators used in Python.

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